

Appl. No. 10/622,954
Amdt. Dated Sep. 23, 2004
Reply to Office Action of Jun. 23, 2004

Amendments to the Specification

On page 1, please amend paragraph [0001] as follows:

[0001] This invention relates generally to a cage for shielding components from electromagnetic interference, and more particularly to a shielding cage assembly for arranging a plurality of transceiver modules therein. This application relates to a copending application serial number 10/455,926 filed 06/06/03 and titled "2X4 SHIELDING CAGE ASSEMBY ADPTED ASSEMBLY ADAPTED FOR MULTIPLE TRANSCEIVER MODULE MODULES", and to a contemporaneously ~~[[file]]~~ filed application having the same title ~~[[with]]~~ as the instant invention[[,]]. both of which Both the copending and the contemporaneously filed applications have the same applicant and the same assignee ~~[[with]]~~ as the instant application, and ~~referred hereto~~ the contents of both these applications are incorporated herein by reference.

On page 6, please amend paragraph [0018] as follows:

[0018] Referring also to FIG 5, the conductive upper shielding cage 21 is substantially similar to the lower shielding cage 22 in structure. A plurality of conductive upper dividing walls 23 is received in the upper shielding cage 21. The upper dividing walls 23 are similar to the lower dividing walls 25 received in the lower shielding cage 22, one difference being a plurality of retaining tabs 231 being formed on an upper edge of ~~[[the]]~~ each upper dividing wall 23 in place of the mounting pins 251 of ~~[[the]]~~ each lower dividing wall 25. The retaining tabs 231 pass through notches (not labeled) of a first portion 211. Similarly, a plurality of mounting pins ~~[[234]]~~ (not shown) formed on a lower edge of the upper dividing

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wall 23 and similar to the mounting pins 254 of the lower dividing wall 25 pass through corresponding notches (not shown) defined in a second portion 212, said notches being similar to the notches 215 in the lower shielding cage 22. A back tab 236 is similar to the back tab 256 [[in]] of the lower dividing wall 25. A protrusion 237 extends from a lower, rearward edge of the upper dividing wall 23.

On pages 6~7, please amend paragraph [0019] as follows:

[0019] Referring to FIG. 4, the spacer 3 is die-cast and is made of a lightweight material, such as aluminum alloy, zinc alloy, or plastic coated with a conductive material. This kind of spacer 3 has good electrical and thermal conductivities for EMI continuity and heat dissipation. The spacer 3 includes a rectangular base 31 and has a pair of bulges 32 extending from each of two opposite sides of the base 31, wherein each bulge 32 defines a recess 33 at a bottom of the base 31. A plurality of extending posts (not labeled), each defining a press-fit hole 34 therethrough, is formed on the base 31 arranged in lines for receiving the mounting pins of the upper dividing wall 23 and the mounting pins [[234,]] 251 of the upper and lower dividing walls [[23,]] 25 therein. A plurality of venting holes 35 is defined through the base 31. This structure of the spacer 3 allows air to flow freely in all directions around the spacer 3. A front edge (not labeled) of the spacer 3 provides a stop feature when the shielding cage assembly 10 is inserted in the apertures 501 of the panel 5 of the system assembly.

On pages 8~9, please amend paragraph [0021] as follows:

[0021] In assembly, the retaining tabs 231 or mounting pins [[234,]] of the upper dividing wall 23 and mounting pins 251, 254 of the dividing walls [[23,]] 25 are respectively inserted into the first or second portions of the upper and lower

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shielding cages 21, 22, and the corresponding second or first portions of the shielding cages 21, 22 are assembled thereto to create completely assembled upper and lower shielding cages 21, 22. The second portion 222 of the lower shielding cage 22 is oriented upwardly, and the spacer 3 is mounted thereonto, the bulges 32 of the spacer 3 being positioned away from the second portion 222, and the mounting pins 251 of the lower dividing walls 25 being inserted into the press-fit holes 34 of the spacer 3. The upper shielding cage 21 fits to the spacer 3, whereinherein, the mounting pins [[234]] of the upper dividing wall 23 [[goes]] go into the press-fit holes 34 of the spacer 3. The protrusions 237, 257 of the dividing walls 23, 25 come in complementary pairs. Thus, the upper shielding cage 21 and lower shielding cage 22 are stacked belly-to-belly, and the spacer 3 is sandwiched therebetween for providing good air ventilation. The hanger 1 encloses the upper and lower shielding cages 21, 22, with the retaining tabs 231 of the upper shielding cage 21 passing through corresponding slits 112 and hooking onto the hanger 1 for mechanical support and electrical grounding. Each channel formed inside the upper and lower shielding cages 21, 22 is used to receive a transceiver module. The electrical connectors 6 are received inside the metal hanger 1 between the dividing walls 23, 25 and side walls 12 to a rear of the channels. The inward pins 625 of the electrical connectors 6 are deformed inwardly and pass through the corresponding through holes 110 of the hanger 1. The bottom surface 63 of each electrical connector 6 is exposed from the hanger 1. The inward tabs 121 [[in]] of the side walls 12 of the hanger 1 are inserted into the recesses 33 of the spacer 3, locking the spacer 3 in the hanger 1. The back tabs 236, 256 of the upper and lower dividing walls 23, 25 protrude out of the rear wall 13 of the hanger 1 and are bent at an angle for mechanical retention to and electrical continuity with the hanger 1 for EMI shielding. The mounting pins 124 of the hanger 1 and the

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mounting pins 254 of the lower dividing walls 25 are pressed into mounting holes (not shown) of the printed circuit board 4 for retaining and grounding, where they can be soldered or otherwise fixed therein. The positioning pins 631 of the electrical connectors 6 are inserted into positioning holes (not shown) of the printed circuit board 4, and the signal contacts 635, 637 and the ground contacts 633 are respectively received into corresponding holes (not shown) of the printed circuit board 4 for transmitting signals or electrical grounding. An assembly of the shielding cage assembly 10, the electrical connectors 6, and the printed circuit board 4 is thus completed.